



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/519,186

12/21/2004

Volker Frenz

29827/40743

6814

4743 7590 03/22/2007
MARSHALL, GERSTEIN & BORUN LLP
233 S. WACKER DRIVE, SUITE 6300
SEARS TOWER
CHICAGO, IL 60606

EXAMINER

LISTVOYB, GREGORY

ART UNIT

PAPER NUMBER

1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/519,186	Applicant(s) FRENZ ET AL.	
	Examiner Gregory Listvoyb	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-35 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/13/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

Claims 1-35 rejected under 35 U.S.C. 103(a) as being unpatentable over Merrigan et al (WO 02/078758) herein Merrigan evidenced by Masashi et al (DE4127814) herein Masashi and Saunders et al (US patent 3755280) herein Saunders in combination with Merrigan 2 (US publication 2004/0068093) herein Merrigan 2.

Merrigan discloses a process for making a hydrogel adhesives comprising 10-90 wt% water, 10-60 wt% of cross-linked hydrophilic polymer made from at least one starting monomer type (page 2), and 10-80 wt% of at least one polyol, i.e glycerol (page 3), characterized in that process comprises the steps of:

1) preparing said starting monomer(s) solution from 10-90 wt% water, from 10-60 wt% of starting monomer(s) and from 10-80 wt% of said polyol(s), and adding a modifying compound in said monomer solution prior to polymerization of the so formed mixture and thereafter.

2) polymerizing said monomer(s) within a reaction medium comprising from 10-90 wt% water from 10-60 wt% of said starting monomer(s) and from 10-80 wt% of said polyol(s), in the presence of the modifying compound to thereby form a hydrogel,

Modifying compound can include ascorbic acid, added directly to a monomer solution in a stirring vessel (page 8), which is known as a scavenger for residual monomer as evidenced by Masashi (Abstract).

Regarding claims 4 and 5, chain transfer agent is added to a monomer solution (page 9).

In reference to claims 6, 10, 12, 24, 27, 28 and 32, 33 and 35 the residual monomer comprises acrolein at concentration below 40 ppb.

In reference to claim 7, Merrigan discloses a polymerization at pH range of 3.5-7 (page 9)

Regarding claims 14-17 and 35 Merrigan teaches a photopolymerisation, initiated by Darakur 1173 (the same compound as in Application examined) at concentration less than 0.02-0.4% (page 8 and Example 3) with integrated UV intensity at wavelengths less than 280 nm of the total integrated UV intensity with wavelengths less than 400 nm ((pages 9 and 10) with less than 1% of total integrated intensity.

Regarding claim 22, Merrigan copolymer is analogous to one in the Application.

Therefore, Merrigan product inherently possesses target delta within the range of 0.03- to 3.

Merrigan does not teach a thiol, a sulfite a methabisulfite or bisulfite. Merrigan 2 teaches a bisulfite or metabisulfite at concentration of 1000 ppm (Example 2) as the preferred modifying compounds for acrolein scavenging (page 5, line 0056) in a photopolymerisation process with total UV energy ranging from 0.1 to 30J/cm² (page 4, line 0046). Sulfites are more thermally stable compare to ascorbic acids, which leads to

more long lasting scavenging effect for residual monomers. Saunders evidences that sulfite can be introduced in the initial step of the polymerization as a part of redox-initiation system.

Therefore, it would be obvious to a person with ordinary skills in the art to use sulfite as a modifying compound in Merrigan process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Listvoyb whose telephone number is (571) 272-6105. The examiner can normally be reached on 9am-6pm.

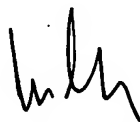
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/519,186
Art Unit: 1711

Page 5

Gregory Listvoyb
Examiner
Art Unit 1711

A handwritten signature in black ink, appearing to read 'J. Seidleck', with a stylized, cursive script.

James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700